

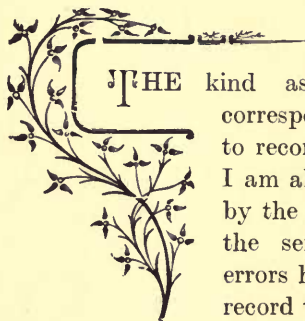


On New and Rare British Arachnids

NOTED AND OBSERVED IN 1911.

By the Rev. O. PICKARD-CAMBRIDGE, M.A., F.R.S., &c.

(Read February, 1912.)



THE kind assistance and work of various correspondents during 1911 enable me to record several species new to science. I am also able to correct some synonyms by the discovery and proper allocation of the sexes in cases where unavoidable errors had been previously made, and to record the discovery of the female in some cases where hitherto the male only was known. I must also mention here that under one name, *Ero thoracica*, Wid. (identical with *Ero furcata*, Villers), we have hitherto mixed up two species, the additional one being *Ero Cambridgii*, Kulczynski, only now recorded as a British form. The species considered to be new to science are *Theridion salvum*, from Warmwell; *Leptyphantes nigrescens*, Lichfield, Staffordshire; *Bathyphantes explicata*, Kew

EXPLANATION OF PLATE A.

Proc. Dorset N.H. and A.F. Club, Vol. XXXIII., 1912.

Fig. 1.—*Titanceca quadriguttata*, Hahn-Sim.

1. *Cephalothorax* ; 2. *profile of ditto* ; 3. *Eyes from above and behind* ; 4. *Maxillæ, labium, and sternum* ; 5. *Spinners*.

„ 1A.—*Protadia patula*, Sim.

1a, *female, Spider without legs* ; 2a, *male, eyes from above and behind* ; 3a, *left palpus, male, from underneath* ; 4a, *ditto from outer-side* ; 5a, *metatarsus of 4th pair of legs of female shewing calamistrum* ; 6, *genital aperture of female* ; 7, *hinder end of sternum*.

„ 8.—*Theridion salvum*, sp.n., male.

8, *right palpus from outer-side* ; 9, *left palpus, outer side in front* ; 10, *right palpus of Theridion denticulatum, Walck., male, for comparison with fig. 8*.

„ 11.—*Leptyphantes nigrescens*, sp.n., male.

11, *Profile of Cephalothorax* ; 12, *eyes from above and behind* ; 13, *left palpus from outer-side*.

„ 14.—*Bathyphantes explicata*, sp.n., male.

14, *Right palpus from outer-side* ; 15, *portion of ditto from above and behind, shewing form of radial joint*.

„ 16.—*Maro Falconerii*, Jackson, female.

16, *Profile without legs* ; 17, *eyes from above and behind* ; 18, *genital aperture* ; 19, *hinder end of sternum*.

„ 20.—*Maro persimilis*, sp.n., female.

20, *Cephalothorax* ; 21, *eyes from above and behind* ; 22, *profile of abdomen* ; 22a, *genital aperture*.

„ 23.—*Styloctetor morula*, Cambr., male.

23, *profile of Cephalothorax* ; 24, *eyes from above and behind* ; 25, 26, *left palpus in two positions, shewing form of radial joint* ; 27, *coxal joint of fourth pair of legs* ; 28, *outer margin of spiracular plate* ; 29, *spiracular plate shewing transverse dentiform striation*.

„ 30.—*Ero Cambridgii*, Kulcz., male and female.

30, *left palpus, male, digital joint from outer side, directed inwards* ; 31, 32, 33, *genital aperture, female, from different examples*.

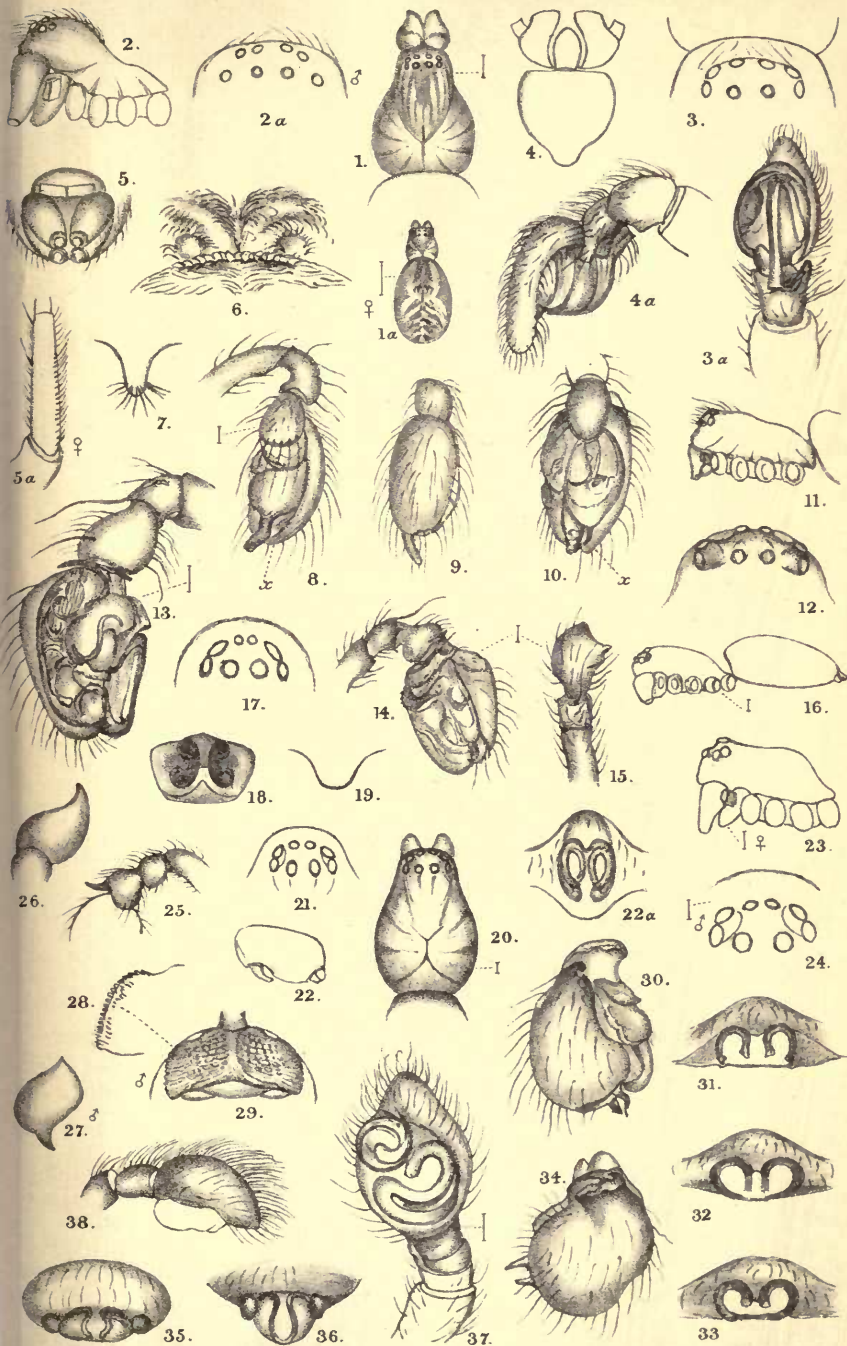
„ 34.—*Ero furcata*, Villers.

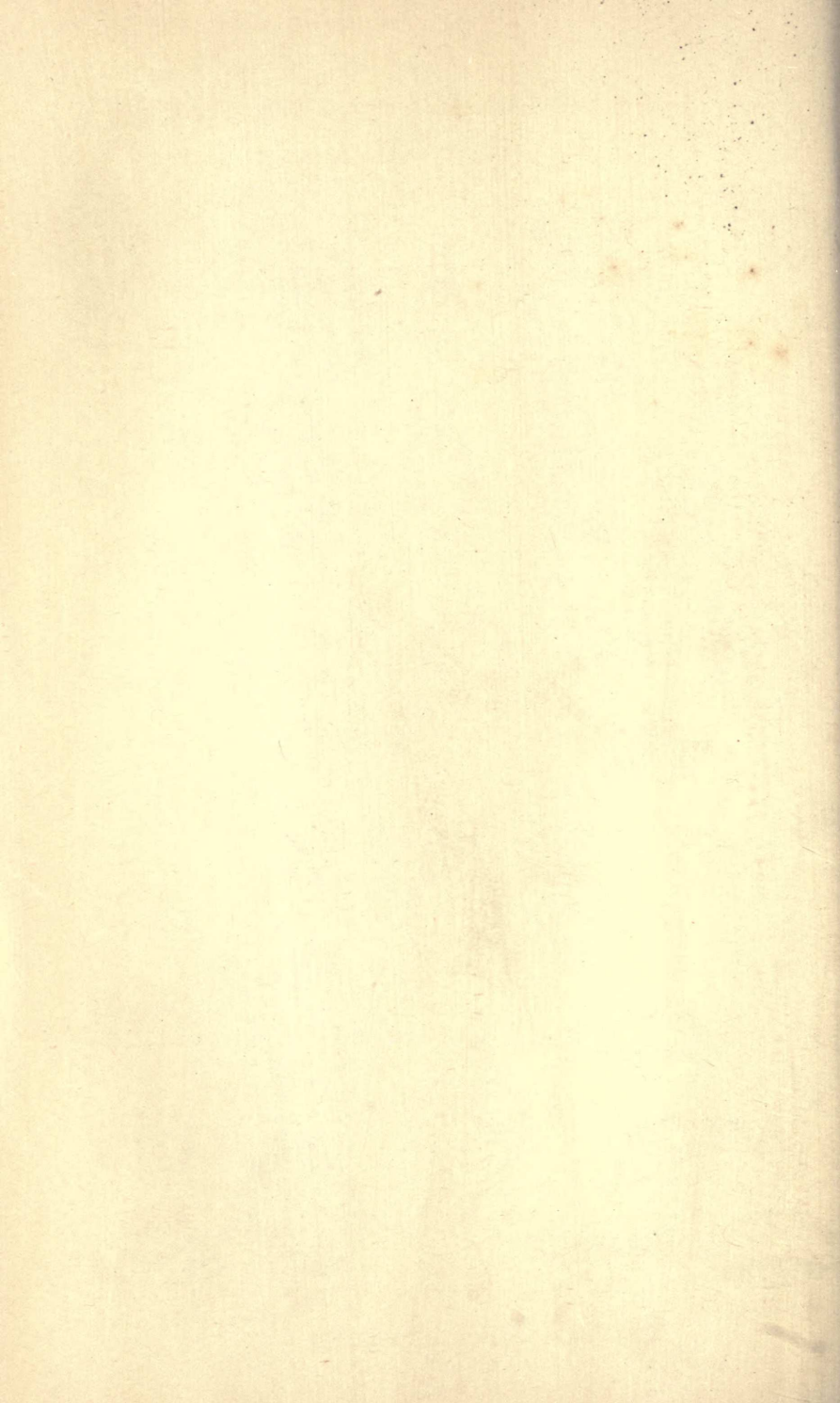
34, *right palpus, male, digital joint from inner side* ; 35, 36, *genital aperture, female, from different examples*.

„ 37.—*Euophrys molesta*, sp.n.

37, *left palpus, under side* ; 38, *right palpus, outer side*.

N.B.—In all cases the short lines denote the length of the different spiders.





Gardens ; *Maro persimilis*, from Bagenalstown, Ireland ; and *Euophrys molesta*, from near Plymouth. I have also further received from near Plymouth *Titanoeca quadriguttata*, Hahn., which is also, both genus and species, new to Britain.

Further notes will be found, with full descriptions of some of them, upon all the above species in the following pages, as well as upon those cases where one or other of the sexes has been hitherto unknown, or where they may have been erroneously allocated. Almost all the correspondents mentioned in my Paper (Proc. Dorset Field Club, Vol. XXXI., p. 48) have continued to send me materials, without which my study of our British Arachnids would be greatly curtailed ; and my thanks to them all are very sincere.

I would again here refer to the following publications in which further information on some of the species in the following list may be obtained : "*Spiders of Dorset*," 1879-81 and the numerous supplemental papers contained in the annual volumes, since published, of the Dorset Nat. Histy. and Antiq. Field Club, 1882-1911 ; *The List of British and Irish Spiders* (Sime and Co., Dorchester, 1900) ; as well as the Monographs on *British Phalangidea* or Harvest Men, and on the *British Chernetidea*, or False Scorpions, published in Vols. XV., 1890, and XIII., 1892, of the Dorset Field Club Proceedings.

Since Vol. XXXII. Proc. Dorset Field Club was printed, several papers upon British Arachnida have appeared, viz. :

"*On a Spider new to Science recently found in Ireland*," "Irish Naturalist," Vol. XX., pp. 28-31, pl. 1, figs. 1-7, 1911. By Dr. A. R. Jackson, M.D., D.Sc.

"*A List of Spiders Collected at Forres ("Moray") in August, 1910*," "Annals of Scottish Natural History," April, 1911, pp. 79-82. By the Rev. J. E. Hull, M.A., Whitfield, Northumberland.

"*New and Rare British Spiders*," Trans. Nat. Hist. Society of Northumberland, Durham, and Newcastle-upon-Tyne, n.s. Vol. IV., pp. 42-57, pl. II., figs. 1-17, 1911. By the Rev. J. E. Hull, M.A., Whitfield, Northumberland.

"*New and Rare Yorkshire Spiders*," "Naturalist," Aug., 1911, pp. 283-288, figs. 1-4. By Mr. W. Falconer, Slaithwaite, near Huddersfield.

"*Keys to the Families and Genera of British Spiders*, and the families' genera and species of British Harvestmen and Pseudo-Scorpions," "Naturalist," 1910, pp. 233-477. By Mr. W. Falconer, Slaithwaite, near Huddersfield.

"*A Synopsis of the False Scorpions of Britain and Ireland*," Proceedings of the Royal Irish Academy, Vol. XXIX. Section B, No. 2, pp. 39-64, pl. iv., v., vi., 1911. By Harry Wallis, Kew.

ARACHNIDA.

ARANEIDEA.

Fam. DRASSIDÆ.

Micariosoma minimum, C. L. Koch.

Phrurolithus minimus, C. L. Koch.

Micariosoma minimum, C. L. Koch ; E. Simon, Arachn. de France, Vol. IV., p. 277. Dr. A. R. Jackson, M.D., Lancashire Naturalist, 1911, p. 385, pl. xii., fig. 1-3.

Adults of both sexes of this spider were sent to me by Dr. A. R. Jackson, M.D., &c., by whom they were found at Box Hill, Surrey, in June, 1911. It is only very recently that this spider has been noted as British ; it is nearly allied to the rather larger and more strongly marked species, *Micariosoma festivum*, C. L. Koch, which is widely dispersed and abundant, and with which the present might easily be overlooked.

Fam. DICTYNIDÆ.

Protadia patula, Sim., pl. A, figg. 1a, 2a, 3a, 4a, 5a, 6, 7.

Lethia patula, Camb. Spid. Dors., p. 470.

Dictyna patula, Sim., Arachn. de France, I., p. 197.

Both sexes, adult, have been sent to me, in June, 1911, by Dr. A. R. Jackson, by whom they were found at Queensberry Ferry, on the river Dee. Until now the female only of this species has been known; examples of this sex have been received from some other localities, as well as from Sussex, where the first known British specimens occurred. The male closely resembles the female in colours and markings. For a fuller description see postea (p. 85).

Titanoeca quadriguttata, Hahn, pl. A, figg. 1, 2, 3, 4, 5.

Titanoeca quadriguttata, Hahn, Simon, Arachn. de France, tom I., p. 215.

An immature male of this spider was sent to me from near Plymouth by Mr. J. H. Keys in 1911. The genus is allied to *Amaurobius*, C. L. Koch, as well as to *Dictyna*, Sund. The example recorded has been examined by Mons. Simon, and, though not adult, is considered by him to belong to this species (*quadriguttata*, Hahn.). I may remark that Mons. Simon, in his latest work, includes *Titanoeca*, Thor., as generically the same as *Amaurobius*, C. L. Koch. At present I have thought it best to keep them apart. (For a description of this spider *vide* p. 87, postea).

Hahnia candida, Simon.

Hahnia candida, Simon-Cambr. Spid. Dors., p. 71.

Adults of both sexes were met with by Dr. Jackson in the Island of Portland in September, 1911. This is the first record of its occurrence since it was found in the same locality by myself many years ago.

Fam. THERIDIIDÆ.

Theridion salvum, sp.n., pl. A, figg. 8, 9.

An adult male, taken at Warmwell by the Rev. R. J. Pickard-Cambridge on iron railings in June, 1911. It is nearly allied to *Theridion denticulatum*, Walck, but may be easily distinguished by the structure of the palpal organs. Sec pl. A, fig. 10. Bösenberg describes and figures ("Die spinnen Deutschlands, pl. ix., fig. 124, p. 101) the male palpi of a spider he calls *Theridium pinastri*, L. Koch, bearing some resemblance in the palpi to the present species, but the spider he represents is I think certainly not *T. pinastri*; at any rate it is quite different from types of *Theridium pinastri* sent to me some years ago by Dr. L. Koch himself; it is also different in the palpi, and in other respects from the spider now described; and even if it were the same, it would need re-naming, Bösenberg's spider not being *T. pinastri*. Bösenberg also, *l.c. supra* describes and figures another allied species (*Theridion braccatum* L Koch—a Tyrolese spider). I have not seen a type of this species, which, though allied to the present, is also, I believe, distinct. (For description of *T. salvum*, vide postea, p. 88.).

Laseola prona, Menge.

Euryopis prona, Menge-Cambr., Spider Dors., p. 481, and Proc. Dors. F. Club, Vol. XIV., p. 151, 1893.

Laseola jucunda, Cambr., Proc. Dors. F. Club, XXIX., p. 170.

Both sexes received from Dr. A. R. Jackson, June 1911, and found in Dorsetshire. A careful comparison of these with the type of *L. prona*, Menge-Cambr., proves the identity of this spider with *Laseola jucunda*, Cambr.

Laseola inornata, Cambr.

Laseola dissimilis, Cambr., female, Proc. Dors.
F. Club, Vol. XXVII., p. 84, fig. , Vol.
XXVIII., p. 126, and XXIX., p. 170.

The identity of *Laseola dissimilis*, Cambr., female, and the female of *L. inornata*, Cambr., seems to be certain.

Leptyphantes nigrescens, sp.n., pl. A, figg. 11, 12, 13.

The adult male was contained in a collection of spiders received from Dr. Carr, University College, Nottingham, and found by his nephew, Mr. Lancelot Carr, near Lichfield, in 1911. This genus is now very numerous in species, but I believe the present to be quite distinct and hitherto undescribed. In the male sex the form and structure of the palpi and palpal organs furnish the strongest characters for the identification of the species. (For full description see postea, p. 90).

Bathyphantes explicata, Cambr., pl. A, figg. 14, 15.

Bathyphantes explicata, Cambr., Bulletin Roy.
Gard., Kew, 1911, p. 370.

Among other spiders received in 1898 from the Royal Gardens at Kew, an adult male was overlooked at the time. I quite believe it to be an indigenous species. It differs from all of this genus known to me in the form and structure of the palpi.

Hilaira nubigena, Hull.

Hilaira nubigena, Hull, Trans. Nat. Hist. Soc.,
Northumberland, Durham, and Newcastle-
upon-Tyne, n.s., Vol. IV., p. 47, pl. ii., figs. 1.
4, 5, 6, 7, 13, 1911.

Both sexes of this very distinct new species and fine addition to our British List were received from the Rev. J. E. Hull, by whom they were discovered at Killhope Lane, Northumberland, in 1910 and 1911.

(?) **Oreoneta fortunata**, Cambr.

Tmeticus fortunatus, Cambr., Proc. Dors. Field Club, Vol. XVI., p. 123, pl. A, fig. 6, and XXV., p. 104.

An adult male of this still rare spider, found at Warmwell Rectory, was received in June, 1911, from the Rev. R. J. Pickard-Cambridge.

Gongylidiellum faustum, Cambr.

Sintula fausta, Cambr., Proc. Dors. Field Club, Vol. XXXI., p. 53.

Monsieur Eugène Simon having examined typical examples of this species considers them to belong to the genus *Gongylidiellum*, Sim., and to be nearly allied to *G. placidum*, Sim., Arachn. de France, Vol. V., p. 603, fig. 419.

Microneta sublimis, Cambr.

Nerienne sublimis, Cambr., Spid. Dors., p. 491.

Nerienne morula, Cambr., Spid. Dors., p. 494 (female only).

The spider described as the female of *Nerienne morula*, l.c. supra, proved to be the female of *Microneta* (*Nerienne*) *sublimis*, Cambr., l.c., p. 491.

Maro Falconerii, Jackson, pl. A, figg. 16, 17, 18, 19.

Maro Falconerii, Jackson, Trans. Nat. Hist. Soc., Northumberland, Durham, and Newcastle-upon-Tyne, Vol. III., part I., p. 15, pl. iv., figs. 16-20.

An adult female (set aside at the time of capture for further examination) was found by myself at Hoddesdon, Hertfordshire, many years ago; and another female received from Dr. Jackson in 1901 was taken by him at the Lakes in Cumberland.

(?) *Maro persimilis*, sp.n., pl. A, figg. 20, 21, 22, 22a.

Although differing slightly in the form of the cephalo-thorax, when looked at from above and behind, and in some other respects, at present I include this minute spider in the genus *Maro*; its species is certainly distinct from either of the two already described (*Maro minutus*, Cambr., and *M. Falconerii*, Jackson). It was found and sent to me in 1909 by Mr. D. R. Packe Beresford, Fenagh House, Bagenalstown, Ireland. Possibly this spider may, when the male is discovered, be found to belong more properly to a closely allied genus, *Gongylidiellum*, Sim. (For description see p. 91, postea.

Diplocephalus latifrons, Cambr.

This species has again occurred at Bloxworth during the past summer, an adult male having been found by A. E. Ll. Pickard-Cambridge. It appears to be a much more abundant spider in the north of England.

Entelecara Thorellii, Westr.

Adults of both sexes were received from the Rev. J. E. Hull, Northumberland, where it appears to be plentiful, see Trans. Nat. Hist. Soc., Northumberland, Durham, and Newcastle-on-Tyne, n.s., Vol. IV., p. 49, 1911.

Styloctetor morula, Cambr., pl. A, fig. 23—29.

Nerience morula, Cambr., Spid. Dors., p. 494 (male), and Trans. Lnn. Soc., p. 545, pl. xlvii., fig. 16 (male).

Sintula morula, Cambr., Brit. and Irish Spid., p. 36 (male).

Styloctetor uncinus, Cambr. (male), Proc. Dors. F. Club, XXVI., pp. 51, 65, pl. A, figs. 22-25.

I had long been aware that *Sintula* (*Nerience*) *morula*, Cambr., belonged to the genus *Styloctetor*, or close to it.

and that the female was most probably that of some other spider ; but it is only recently that, on the suggestion of Dr. Jackson, I find, by comparison of the types, that *S. morula*, Cambr. (the male only), is identical with the male of *Styloctator uncinus*, Cambr., the latter first taken by Dr. Jackson on Scafell Pike, Cumberland (see l.c. supra). The female of *Sintula* (*Neriene*) *morula* is undoubtedly that of *Neriene sublimis*, Cambr., Spid. Dorset, 491, and Proc. Berwickshire N. H. Club, Vol. VII., p. 314, 1875.

(?) **Cnephalocotes incurvatus**, Cambr.

Tapinocyba incurvata, Cambr., Spid. Dors., p. 503, Proc. Dor. F. Club, Vol. XXX., p. 106.
Cnephalocotes incurvatus, Cambr., J. E. Hull, Trans. Nat. Hist. Soc., Northumberland and Durham, n.s., Vol. IV., 1911, p. 57, pl. II., fig. 10, female.

This spider seems to me to be out of place in the genus *Tapinocyba*, and to be nearer to *Cnephalocotes*, Sim. The male only has been hitherto described. The Rev. J. E. Hull, however, sent to me some time ago a female spider as, conjecturally, belonging to this species, and he has now recently described and figured dissections from another specimen which he considers to be identical (see l.c. supra), from the coast of Northumberland. This seems to be most probably, as conjectured, the female of *C. incurvatus*, Cambr., and Mr. Hull's figure agrees well with the specimen he sent to me.

Panamomops bicuspis Cambr.

Panamomops bicuspis, Cambr., Proc. Dors. F. Club, Vol. XIV., p. 154.

Adults of both sexes were found at Warmwell on iron railings, and brought to me by the Rev. R. J. Pickard-Cambridge in April, 1911. It is a minute spider, but an

exceedingly remarkable and unmistakable one. It is widely distributed, but so far as known still a rare species.

***Tigellinus furcillatus*, Menge.**

Wideria nigriceps, Cambr., Proc. Dors. F. Club, Vol. XIV., p. 157 (and other references there quoted).

I have never until lately been able to identify satisfactorily any male spider of which *W. nigriceps* might be the female. My son, A. E. Ll. Pickard-Cambridge, has, however, found female examples lately at Bloxworth, and with them the male of *T. furcillatus*, Menge. From these I have come to the conclusion that *W. nigriceps*, Cambr., is undoubtedly the female of *T. furcillatus* Menge.

***Ceratinella scabrosa*, Cambr.**

An adult male on iron railings, Bloxworth Rectory, taken by R. J. Pickard-Cambridge, May 17, 1911.

Fam. MIMETIDÆ.

***Ero tuberculata*, Degeer.**

Ero tuberculata, Degeer, Cambr., Proc. Dors. F. Club, 1911, Vol. XXXII., p. 42.

An adult male taken by Dr. Jackson on Bloxworth Heath, September 26th, 1911, close to the spot where many years ago (September, 1878) an example of the same sex was found by myself: since then, besides the present record, it has only been found here once (vide l.c. supra). The egg-cocoon has, however, been found by myself, though at some distance from the above locality. (See Proc. D. F. Club, XVIII., pl. A, fig. 7.) It appears to be not only a very rare but also a very local species.

Ero Cambridgii, Kulcz, pl. A, figg. 30, 31, 32, 33.

Ero Cambridgii, Kulcz, Revue Suisse de Zoologie, Tom 15, fasc. I., 1907, p. 125 pl. ii., figs. 78, 81, 82.

Ero thoracica, Wid.-Cambr., Spid. Dors., p. 233, ad partem.

Theridion variegatum, Bl., Spid. G. B. and Ir. p. 203, (ad partem).

Professor Kulczynski informs us that some years ago he received from the late F. O. P.-Cambridge a spider under the name of *Ero thoracica*, Wid. (*Theridion variegatum*, B.l), which he (Dr. Kulczynski) considered to be new to science, and that he had described it under the name *Ero Cambridgii* (l.c. supra). It appears on examination that we have two species in England under the name of *E. thoracica*, Wid., and the recognition of these two adds a fresh species to the British List. I find both species mixed in my collection from various localities, chiefly in Dorset. The two are exceedingly similar in general character and appearance, but differ, among other characters, in the form of the palpi and palpal organs of the male, and in the form of the epigyne in the female.

I have lately received an adult male *E. Cambridgii* Kulcz., from Mr. Lancelot Carr, taken near Lichfield, Staffordshire.

Ero furcata, Villers. pl. A, figg. 34, 35, 36.

Aranea furcata, Villers-Sim., Arachn. de France, V., p. 36.

Ero thoracica, Wid.-Cambr., Spid. Dors., p. 233, ad partem.

Theridion variegatum, Walck-Blackw., Spid. of B. and Ir., p. 203, ad partem.

What the true synonyms of this species may be, it is not easy to say, unless we had types or authentic typical examples of some other nearly allied species described

by various authors, for comparison ; at any rate the present and the preceding (*Ero Cambridgii*, Kulcz.) comprise, so far as we know, the two species hitherto recognised as *Theridion variegatum*, Bl. (or *Ero thoracica*, Wid.-Cambr.). Both seem to be about equally abundant as far as my experience goes, and widely distributed. In the absence of any types of Mr. Blackwall's *Ero* (*Theridion*) *variegatum* it is of course impossible to say with absolute certainty which of our two now acknowledged forms he had before him ; it is possible that he had both ; but as Prof. Kulczynski has certainly separated *Ero Cambridgii* by well marked characters, it creates less prospective confusion to conclude that our now remaining form is the present *Ero furcata*, Villers (*Theridion variegatum*, Bl.), ad partem, (female) ; *E. thoracica*, Wid.-Cambr., ad partem.

Epeira dromedaria, Walck.

Epeira dromedaria, Walck-Cambr., Proc. Dors.
F. Club.

Adults of both sexes of this fine and very distinct *Epeira* were received in June, 1911, from Dr. A. R. Jackson, M.D. ; by whom they had been then lately taken at Burnham Beeches, Buckinghamshire. The male had not before been found in England.

Fam. THOMISIDÆ.

Xysticus robustus, Hahn.

Xysticus robustus, Hahn.-Cambr., Spid. Dors.,
p. 305 ; Proc. Dors. F. Club, Vol. IV., p. 153.
and Vol. XXXII., p. 43.

An immature female of this fine and rare species was found among heather on Bloxworth Heath on August 10th, 1911, by Rev. R. J. Pickard-Cambridge.

Philodromus prædatus, Cambr.

Philodromus prædatus, Cambr., Spid. Dors.,
p. 332.

An adult, well characterized male, was found at Bloxworth Rectory at the beginning of June, 1911, by A. E. Ll. Pickard-Cambridge. It seems to be doubtful whether this spider is more than a variety of *Philodromus aureolus*, C. L. Koch, of which several varieties are recognised by Continental authors. Mons. Simon considers it to be a good species. But I have never yet met with any female which I could certainly distinguish from those of *P. aureolus*, C. L. Koch, an abundant species here and in numerous other English localities.

Fam. LYCOSIDÆ.**Trochosa robusta**, Sim.

Lycosa robusta, Sim., Arachn. de France, Vol.
III., p. 286.

Trochosa robusta, Sim.-Cambr., Proc. Dors. F.
Club., Vol. XVI., p. 119, and Vol. XVIII.,
p. 112.

The Rev. J. E. Hull tells us that Mr. J. W. H. Harrison has lately met with examples of a *Trochosa* on the Cleveland Coast of Yorkshire, which on comparison with types of *F. robusta*, Sim. (taken by Dr. A. R. Jackson at Swanage in 1911), prove to be of that species. This species, as British, has only been before recorded in Dorsetshire.

Tarentula fabrilis, Clerck.

Adult males were found by Dr. A. R. Jackson on the 26th of September, 1911, on Bloxworth Heath. This fine

and conspicuous Lycosid has only as yet been taken, as British, in this Dorset locality.

***Lycosa postuma*, Cambr.**

Trochosa postuma, Cambr., Proc. Dor. F. Club,
Vol. XXVI., pp. 55-70, pl. B, figs. 25, 26.

An adult female was sent to me by the Rev. J. E. Hull ; it was found in September, 1910, at Forres, N.B. This species was inadvertently described, l.c. supra, as a *Trochosa*. (For a description of this spider see postea p. 92.)

***Lycosa agricola*, Thor.**

Lycosa agricola, Thor.-Cambr., Spid. Dors.,
p. 598.

A very distinct and interesting variety of this species was sent to me some little time since by the Rev. J. E. Hull, who tells me that it is confined to the coast of Northumberland by Holy Island. This variety is chiefly remarkable for the almost complete absence of the hoary hairs with which the normal form is covered, and which usually conceals the characteristic pattern of the spider.

Fam. SALTICIDÆ.

Euophrys molesta, sp.n., pl. A, figg. 37, 38.

An adult male was sent to me in April, 1911, by Mr. J. H. Keys, by whom it was found at Whitsand Bay, near Plymouth. It seems to be allied to *Euophrys baliola*, Sim. (Arachn. de France III., p. 192), and also to *E. frontalis*, Walck ; but believing it to be distinct from both, I have here described it as a sp.n.) See description postea p. 93.)

LIST OF ARACHNIDA

In the foregoing Pages, with reference to Page and Plate.

ARANEIDEA.

Micariosoma minimum,		
C. L. Koch	p. 72	
Protadia patula, Sim.	p. 73	Pl. A, figg. 1a—5a, 6, 7
Titanoeca quadriguttata,		
Hahn.	p. 73	„ figg. 1—5
Hahnia candida, Sim.	p. 73	
Theridion salvum, sp.n.	p. 74	„ figg. 8, 9, 10
Laseola prona, Menge	p. 74	
„ inornata, Cambr.	p. 75	
Leptyphantes nigrescens,		
sp.n.	p. 75	„ figg. 11, 12, 13
Bathyphantes explicata,		
Cambr.	p. 75	„ figg. 14, 15
Hilaira nubigena, Hull	p. 75	
Oreoneta fortunata, Cambr.	p. 76	
Gongylidiellum faustum,		
Cambr.	p. 76	
Microneta sublimis, Cambr.	p. 76	
Maro Falconerii, Jackson	p. 76	„ figg. 16—19
„ persimilis, sp.n.	p. 77	„ figg. 21, 22, 22a
Diplocephalus latifrons,		
Cambr.	p. 77	
Entelecara Thorellii, Westr.	p. 77	
Styloctetor morula, Cambr.	p. 77	„ figg. 23—29
Cnephalocotes incurvatus,		
Cambr.	p. 78	
Panamomops bicuspis, Cambr.	p. 78	
Tigellinus furcillatus, Menge	p. 79	
Ceratinella scabrosa, Cambr.	p. 79	
Ero tuberculata, Degeer	p. 79	
„ Cambridgii, Kulez.	p. 80	„ figg. 30—33
„ furcata, Villers	p. 80	„ figg. 34—36

<i>Epeira dromedaria</i> , Walck	p. 81	
<i>Xysticus robustus</i> , Hahn.	p. 81	
<i>Philodromus prædatus</i> , Cambr.	p. 82	
<i>Trochosa robusta</i> , Sim.	p. 82	
<i>Tarentula fabrilis</i> , Clerck.	p. 82	
<i>Lycosa postuma</i> , Cambr.	p. 83	
„ <i>agricola</i> , Thor.	p. 83	
<i>Euophrys molesta</i> , sp.n.	p. 83	Pl. A, figg. 37, 38

DESCRIPTIONS OF SOME OF THE SPECIES IN THE
FOREGOING LIST.

<i>Protadia patula</i> , Simon	p. 85
<i>Titanoeca quadrigattata</i> , Hahn.	p. 87
<i>Theridion salvum</i> , sp.n.	p. 88
<i>Leptyphantes nigrescens</i> , sp.n.	p. 90
? <i>Maro persimilis</i> , sp.n.	p. 91
<i>Lycosa postuma</i> , Cambr.	p. 92
<i>Euophrys molesta</i> , sp.n.	p. 93

***Protadia patula*, Sim.**

Adult female, length 1 3-4th lines.

Cephalothorax considerably longer than broad ; caput very broad and almost squarely truncate at its fore extremity ; lateral marginal impressions at caput strong ; profile well raised at caput, and depressed posteriorly ; colour yellow brown, caput much deepest, and furnished with coarse hoary hairs on the ocular area ; the normal indentations and grooves are well indicated by converging dark yellowish brown lines.

Eyes of moderate size, and of no greatly differing size ; the hinder row has its slight curve directed forwards ; the quadrangle of the four central eyes is rather broader than

long, and its fore side shorter than the hinder side. The interval between the hind-central eyes is less than that between each and the hind-lateral next to it.

Legs moderate in length and strength ; 1, 2, 4, 3 furnished with hairs only on (so far as could be observed) two small ones at the inner side of the fore extremity of the metatarsi of the third pair. The fourth pair have a long celamistrum on the outer side of the metatarsi, which last were also furnished thickly with short stray hairs underneath ; the metatarsi of the other pairs also are more or less similarly furnished with hairs. The colour of the legs is a uniform yellow brown.

Palpi similar to the legs in colour.

Falces strong ; roundly prominent at their base in front ; and similar in colour to the caput.

Maxillæ strong, straight, only slightly inclined to the labium and slightly obliquely truncate at their extremity.

Labium oblong, truncate at the apex, about two-thirds the length of the maxillæ ; colour (as also of the maxillæ) yellow brown.

Sternum roundish-heartshape hollow truncate, pointed before ; colour, pale yellow-brown.

Abdomen of ordinary obtuse and oval form ; the genital aperture much concealed by coarse hairs, but of characteristic form (see fig. 6) ; and there is a transverse *cribellum* in front of the spinners. The colour and markings had entirely gone from * the specimen above described before its particulars were noted.

The following is taken from an adult female found by Dr. Jackson on the banks of the river Dee, in Cheshire, and which I feel no doubt is of the same species : " On the upper side is a dark black-brown longitudinal central basal marking of rather indefinite shape, but pointed behind, and enclosed by an obscure pale curved whiteish line on each

* It may be remarked that the colours of all parts of this specimen had become much faded and almost obliterated.

side, followed towards the spinners by a series of angular bars or chevrons indicated by their intermediate spaces, being clothed with hoary hairs, the general colour of the abdomen being dark yellowish-brown. This pattern might thus well be described as having the *chevrons* of a hoary colour."

An adult male received also from Dr. Jackson agreed with the above description, and the *palpi* are of very characteristic form. (See fig. 3a.) Although as yet a rare and little known species, the present will probably be found not uncommon when properly worked for.

***Titanoeca quadriguttata*, Hahn. (1831, sub. *Theridion*).**

Titanoeca quadriguttata, Hahn.-Simon (Arachn. de France I., p. 215).

Immature *male*, length 1 1-3rd lines.

This spider closely resembles an *Amaurobius* in general form and structure; the example under consideration appears to be about half the size of an adult of the same sex. The *Cephalothorax* is dark yellow-brown, and longitudinally striped with black-brown lines; the caput paler; the ocular region is clothed with long coarse white adpressed hairs; viewed in profile the caput is considerably raised above the level of the thorax.

Eyes in two transverse lines, rather small, and not greatly differing in size; the posterior row has its slight curve directed backwards, that of the anterior row is directed forwards; those of each lateral pair are separated from each other, and the four centrals form a square.

Legs moderate in length and strength; 1, 4, 2, 3 furnished with hairs only; no spines; colour pale dull brownish yellow, more or less of the anterior portion of the joints dark brown, giving them an annulated appearance. The femora are almost or altogether dark coloured, and there is a long conspicuous calamistrum on the metatarsi of the fourth pair.

Palpi moderately long, undeveloped, but the digital joint of large size. Similar in colour to the legs.

Falces long and strong, similar to the caput in colour, and near fore surface seems to be covered thickly with minute granulations.

Maxillæ rather long, strong, straight, a little inclined to the labium, obliquely truncate at their extremity, and similar to the falces in colour.

Labium oblong, about half the length of the maxillæ, and like the sternum in colour.

Sternum dark brown, of ordinary form.

Abdomen black, with obscure traces of some whitish markings on the upper side, but no pattern was traceable. In front of the ordinary spinners is the transverse one (or *Crivellum*), rather dark, and subdivided; this is always found, correlated with the *Calamistrum* on the metatarsi of the fourth pair of legs (though in the *adult* males one or both these portions of structure are either absent altogether or are very difficult to trace).

In the absence of adult examples it is impossible to be quite certain as to the species of this spider. Its occurrence in Devonshire is of much interest; and I feel very little doubt but that by careful search, where it occurred, it would turn up pretty frequently. The usual habitat of these spiders is under pieces of wood or stone or other shelter in dry places; perhaps dried sea-weed along the coast, left by high tides and storms, would be a likely situation to find it in. As noted above (p. 73) M. Simon now includes this genus under "*Amaurobius*."

***Theridion salvum*, sp.n.**

Adult female length, 1 line.

Cephalothorax of normal form; colour, dull yellowish brown; caput and a tapering band thence to the posterior margin suffused with black-brown; and a narrow marginal border of the same hue with indications of brown converging lines on the sides.

Eyes of central quadrangle form a square ; the fore pair largest, the interval between those of the hinder pair rather more than a diameter.

Legs moderate in length and strength, 1, 2, 4, 3, anterior pair much longest ; colour pale dull yellowish, clearest on the femora ; the other joints somewhat suffused with duller yellowish ; banded faintly with dark brown, chiefly at the extremities of the joints ; furnished with hairs, bristles, and a very few long slender spine-like bristles.

Palpi short, similar to the legs in colour, and of the ordinary *Theridion* form, Digital joint of moderate size ; obtuse oval in form ; palpal organs well developed, but not complex ; the most noticeable process is a projecting one of a somewhat cylindrical form, issuing from their anterior extremity (see figg. 8, 9).

Maxillæ, *Labium*, and *Sternum* normal, dark brown the latter, tinged with yellowish, and furnished with long, curved, bristly hairs.

Falces normal ; colour yellow-brown.

Abdomen oval ; moderately convex above, of a dull luteous ground colour, thickly spotted with variously-shaped small spots of black and white, among which, under a lens of low power, may be traced a longitudinal series of transverse curved white lines running over and down the sides and a broken central longitudinal very obscurely dentated band, with a transverse curved white bar round the fore extremity. The whole abdomen is covered on the upper side with long bristly black hairs. The greater part of the fore half of the under side consists of a coriaceous dark yellow-brown plate, rounded and rather prominent behind and somewhat striated on its surface. The rest of the under side is also dark yellowish brown, and devoid of spots or markings. Halfway, however, between the coriaceous plate is a strong transverse fold or impression, but whether merely a fold in the epidermis or connected with any orifice or not could not be ascertained.

This spider is allied to *Theridion denticulatum*, Walck, but independently of other differential characters, in the abdomen,

&c., the projecting process at the extremity of the palpal organs distinguishes it readily. It was found by the Rev. R. J. Pickard-Cambridge on iron railings at Warmwell Rectory at the middle of June, 1911.

***Leptyphantes nigrescens*, sp.n.**

Adult male length 1 2-3 line (of another example 1 1-8).

Cephalothorax of ordinary form, longer than broad; caput broadly truncate at the fore extremity; lateral constriction at the thoracic junction slight; looked at in profile, the upper marginal line throughout is on the same level and slightly curved, the hinder slope not steep, and slightly curved; only a small impression at the thoracic junction; the height of the clypeus is about equal to half that of the facial space, and the former is much impressed below the anterior eyes and prominent at the fore margin. *Colour* yellow-brown, the caput, normal indentations, and grooves, black brown.

Eyes of moderate and not greatly different size; the fore-central and two lateral pairs are seated on strong tubercular prominences; the three groups forming a transverse figure and occupying the whole width of the caput; the four centrals form a quadrangle rather longer than broad, the anterior side shortest. The posterior row is not quite straight, the convexity of its curve being slight and directed forwards; its two central eyes are nearer together than each is to the lateral on its side.

Legs long, rather slender, 1, 2, 4, 3, of a dull pale yellow-brown colour, the anterior joints slightly suffused with a darker hue. There are several spines on the tibiae of the two fore pairs, and two or three on the metatarsi, one on the outer, another on the inner side, and one nearer the extremity. This last armature seems abnormal for *Leptyphantes*, the ordinary number on the metatarsi being one only.

Palpi yellow-brown, suffused with a darker hue ; short ; the radial joint stronger and longer than the cubital, and expanding at its fore extremity ; a long, straight, slender tapering spine at the fore extremity on the upper side of the cubital, and another not quite so long near the fore extremity on the upper side of the radial joint. These spines are straight or slightly curved. The digital joint is of moderate size, and the palpal organs are well developed and rather complicated ; the precise form and position of the processes can only be understood from the figure 13.

The *falces* are long, strong, slightly divergent at their extremity but not projecting, and are of a dark black-brown colour. The *maxillæ*, *labium*, and *sternum* are normal, and similar in colour to the falces.

The *Abdomen* is oblong-oval ; black ; thinly furnished with short, fine hairs ; and apparently without markings, or if any, only slight traces of a longitudinal pale whitish broken line or stripe on each side.

This fine species, which I believe to be undescribed, was sent to me in a collection of spiders from near Lichfield, by Mr. Lancelot Carr in 1911.

? *Maro persimilis*, sp.n.

Adult female, length 1 18th of an inch (2-3 line).

Cephalothorax considerably longer than broad, rounded at its fore extremity ; its profile slightly convex at the caput, with a slight dip to the thoracic junction, and the hinder slope is long, moderately steep, and with a slight dip at its upper end ; the clypeus is equal in height to half that of the facial space. Colour dull brownish yellow ; the normal grooves and indentations are marked by dusky yellow-brown converging lines ; marginal line brown.

Eyes of moderate size ; on black spots in two transverse rows forming a semi-circle, whose convexity is directed forwards ; the very slight convexity of the hinder row is

directed backwards; each lateral pair is seated on a low tubercle; the quadrangle formed by the central four is rather broader than long; its fore side much the shortest, and the eyes of this side are much the smallest of the four; the size of the rest is nearly or quite equal; the interval between the hind-central pair is rather greater than that between each and the hind lateral next to it. Excepting the fore-centrals, which are dark coloured, all the rest are of a bright pearly white.

Legs of moderate length and strength, apparently 4, 1, 2, 3, furnished with hairs, a very few spiniform bristles, and a long slender prominent spine from the upper side of the tibiæ of the fourth pair. The colour of the legs is like that of the *cephalothorax*.

Palpi similar in colour to the legs.

Falces rather strong, straight, vertical, similar in colour to the *cephalothorax*.

Maxillæ short, strong, similar in colour to the legs, inclined to the labium, which last is very short, blunt pointed at the apex, not more than half the length of the maxillæ, and impressed across the middle.

Sternum large, as long as broad, truncate before, drawn into a broad point at its hinder extremity, and of a dull yellowish colour clouded with brown.

Abdomen (rather mutilated) somewhat oblong-oval, and of a dark dull blackish hue. The genital aperture formed by a long very characteristically shaped process (see figure 22*a*). Received from Mr. D. R. Packe Beresford, Fenagh, Ireland. genus appears doubtful.

Lycosa postuma, Cambr.

Trochosa postuma Cambr. Proc. Dor. F, Club
XXVI., pp. 55, 70, pl. B, figg. 25, 26.—
1905.

Owing to the specimen from which the type of this species was described having lost its colours and markings before

description, those characters were to a great extent unreliable. The specimen, however, now received from the Rev. J. E. Hull agrees with the type in the more important points of structure, and enables me to give a better idea of its colours and markings. In the present example the lateral bands on the *cephalothorax* are deep brown, and the *caput* is suffused with black brown. The *legs* are bright and rather orange-yellow, strongly and, excepting the tarsi, distinctly annulated with black. The *palpi* are similar in colour and markings to the leg. The *abdomen* is deep brown, the fusiform central marking on the fore half of the upper side is of a dark yellow-brown margined with black; the ordinary Lycosid markings (of oblique lines or circumflex markings on the hinder part) are only indicated by a row on each side of obscure pale spots. The *sternum* is black.

The specimen above described was taken at Forres, N.B., and kindly sent to me by the Rev. J. E. Hull, of Whitfield, Northumberland.

The type of *L. postuma* was, by an oversight, described (*l.c. supra*) as a *Trochosa*.

***Euophrys molesta*, sp.n.**

Adult male, length 1 1-2 lines.

Cephalothorax longer than broad, and well elevated; the profile forms an even curve from the ocular area to the beginning of the posterior slope, which is straight and tolerably steep, an angle of 45deg.; sides (viewed from above) subparallel. The ocular area occupies the whole width of the caput, and is much wider than long (about double the length); colour black-brown; caput darkest; the whole furnished with a mixture of black and hoary hairs; the black hairs at the fore margin and sides of the caput are longest.

Eyes of the front row evenly separated, and form a line equal in length to that of the third row; the small intermediate eye on each side (forming the second row) is equally

distant between the fore lateral and the hind lateral eye, and is in a straight line between them; the ocular area is distinctly wider than long. The eyes of the anterior row have some yellow scaliform hairs encircling them and black bristly hairs about them. The lower margin of the clypeus is furnished with a dense fringe of strong, bright yellowish hairs, and the four central eyes are double the size of the fore-laterals.

Legs 4, 3, 1, 2, short, strong; those of the first and second pairs are black, excepting the tarsi, which are pale yellowish white; those of the third and fourth pairs are of a lighter black brown, with a somewhat linear-striate appearance on the femora and tibiæ, the tarsi being similar in colour to those of the first and second pairs. The undersides of the tibiæ and metatarsi of the first and second pairs are densely furnished with strong bristly black hairs and some strong spines, whose number and nature I could not satisfactorily ascertain. There were also a few spines on the tibiæ, tarsi, and metatarsi of the third and fourth pairs.

Palpi short; radial and cubital joints yellow-white clothed with white hairs; a slight fringe of the same is directed inwards at the fore extremity of the radial joints on the inner side; the digital joints are of moderate size, white with a slight yellowish tinge, and clothed with white hairs; palpal organs much like those of *E. frontalis*, Walck.

Maxillæ and *labium* black-brown, tipped with pearly white.

Sternum black-brown.

Abdomen short-oval, black-brown, composed of numerous black-brown striæ on a yellow-brown ground, but I could trace no distinct pattern; the whole is densely clothed above with strong hairs, white in front and on the sides, and mixed with dark hairs; those on the central portion, especially, reflecting a strong golden hue along the upper side. The inferior spinners are black above, the rest deep brown; under side black-brown, obscurely marked with yellow-brown laterally and along the middle. An immature female, taken at the same time and place resembled the male excepting in the legs. These were of a uniform pale yellowish white, distinctly and

evenly annulated with black rings ; and the abdomen had on each side a narrow whitish irregular longitudinal line.

This spider is allied to *Euophrys frontalis*, Walck., but the complete absence of the long, very conspicuous and characteristic group or tuft of long shiny white hairs from the cubital joints of the palpi and extending over the digital joint, distinguishes it at once. There are also several other marked differences. It seems to be allied to *Euophrys baliola*, Sim. (a Corsican species), as well as to *Euophrys frontalis*, Walck. ; it was taken by Mr. J. H. Keys near Plymouth in the spring of 1911.

